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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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09/413,959 10/07/99 FEYEREISEN

T H16-25536

EXAMINER

000128 PM82/0511
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TRAN, D
ART UNIT

PAPER

3661

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DATE MAILED: 05/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Tan Nguyen
TAN NGUYEN
PRIMARY EXAMINER

Office Action Summary

Application No.

09/413,959

Applicant(s)

FEYEREISEN ET AL

Examiner

DALENA TRAN

Group Art Unit

3661



☒ Responsive to communication(s) filed on Oct 7, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-57 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-57 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Notice to Applicants

1. This application has been examined. Claims 1-57 are pending.
2. The prior art submitted on December 14, 1999 has been considered.

Drawings

3. The drawings are objected to under 37 CAR § 1.84 for the reasons set forth by the draftsman. See attached PTO-948 form for details. Correction is required.

However, correction of the noted defect can be deferred until the application is allowed by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4,9,12-14,18-23,27-29,32-36,38-39,40-42,44-46,49, and 53-55, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Simpson et al. (5,999,882) in view of Dearth (3,750,166).

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As per claim 1, Simpson et al disclose a method for planning routes by a user in the presence of hazards (see column 15, lines 14-31), comprising: receiving data representing a route for a vehicle (see column 1, lines 57-62; column 3, lines 27-31; and column 6, lines 33-42); receiving data representing hazards associated with the route (see column 10, lines 28-42; and column 11, lines 51-60); displaying geographic representations of the route data and the hazard data together (see column 3, lines 31-44); and inputting and displaying specifications from the user for at least some of the displayed hazard data (see column 2, lines 17-42; columns 9 to 10, lines 61 to 5; column 11, lines 10-20, lines 33-50; and columns 12 to 13, lines 53 to 14).

Simpson et al. do not disclose different types of hazard. However, Dearth disclose the hazards having a plurality of different types (see column 1, lines 4-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce different types of hazard to provide to a pilot with complete situational awareness of potential hazards to the aircraft.

As per claim 2, Simpson et al. disclose the route is a flight plan for an aircraft (see column 1 to 2, lines 65 to 3; column 3, lines 20-27; and column 8, lines 46-50).

As per claim 3, Simpson et al. disclose the flight plan includes a plurality of waypoints (see column 1, lines 62-64; column 8, lines 54-67; and columns 10 to 11, lines 65 to 3).

As per claim 4, Simpson et al do not clearly disclose the specifications include boundaries of areas representing at least one of the hazards. However, Dearth disclose that (see column 4, lines 46-62). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify the teach of Simpson et al by introduce the specifications include boundaries of areas representing at least one of the hazards to have a more accurate for planning a route in the presence of hazards.

As per claim 9, Simpson et al. disclose hazard types include weather hazards (see column 8, lines 51-53).

As per claim 12 and 13, Simpson et al. disclose the geographic representations are displayed in a lateral and vertical depiction (see column 13, lines 40-50).

As per claim 14, Simpson et al. disclose the specifications from the user comprises receiving inputs from a set of controls operable by the user (see column 5, lines 42-48; and columns 6, lines 43-67).

As per claim 19, Simpson et al. disclose a medium comprises a storage medium (see column 8, lines 31-36).

As per claim 20, Simpson et al. disclose the medium comprises signals (see column 5, lines 11-40; and columns 5 to 6, lines 49-9).

Claims 38 and 39, are apparatus claims corresponding to method claims 1 and 4 above. Therefore, they are rejected for the same rationales set forth as above.

As per claim 40, Simpson et al. disclose the presenting means includes a visual display (see column 1, lines 54-56).

As per claim 41, Simpson et al. disclose the input means includes a cursor-positioning device (see column 3, lines 58-67; and column 9, lines 17-24).

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As per claim 42, Simpson et al. disclose the hazard receiving means includes a communications device (see column 3, lines 51-57; and column 4, lines 1-41).

Claims 21, 44 and 45 are system claims corresponding to method claim 1 above. Therefore, they are rejected for the same rationales set forth as above.

As per claim 55, Simpson et al. do not clearly disclose the hazard data is displayed temporally as well as geographically. However, Dearth disclose that (see column 5, lines 27-35; and columns 9 to 10, lines 23-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the hazard data is displayed as well as geographically to provide a geographic position and movement around an operator associate with the hazards.

Claim 18 is a medium claim corresponding to method claim 1 above. Therefore, it is rejected for the same rationales set forth as above.

Claims 22,23, are system claims corresponding to method claims 2,4 above. Therefore, they are rejected for the same rationales set forth as above.

Claims 27,28, and 29 are system claims corresponding to method claims 3, and 9 above. Therefore, they are rejected for the same rationales set forth as above.

Claims 32,33,34,35,and 36 are system claims corresponding to method claims 12,13,14,15 and 16 above. Therefore, they are rejected for the same rationales set forth as above.

Claims 46,49,53, and 54 are system claims corresponding to method claims 4,9,12 and 13 above. Therefore, they are rejected for the same rationales set forth as above.

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6. Claims 6,7,10,11,25,26,30,31,48, and 50-51, as understood by examiner, are rejected under 35 U.S.C.103(a) as being unpatentable over Simpson et al. (5,999,882) in view of Atlas (4,649,388).

As per claim 6, Simpson et al do not clearly disclose the motion of the hazard. However, Atlas disclose specifications include data relating to motion of at least one of the hazard (see column 10, lines 3-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the motion of the hazard to have more accuracy data in detecting a route for an aircraft.

As per claim 7, Simpson et al. disclose direction and speed of the one hazard (see column 12, lines 17-30).

As per claim 10 and 11, Simpson et al. do not disclose different hazard types intensities. However, Atlas discloses display hazard data represents different hazard types differently see columns 3 to 4, lines 38-28); also Atlas discloses different hazard intensities differently (see columns 9 to 10, lines 49 to 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the different hazard types and intensities to have a differentiate of the more dangerous hazard to be avoided.

Claims 25 and 48,26,30 and 50, 31 and 51, are system claims corresponding to method claims 6,7,10 and 11 above. Therefore, they are rejected for the same rationales set forth as above.

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7. Claims 8,15,16, and 52, as understood by examiner, are reject under 35 U.S.C. 103(a) as being unpatentable over Simpson et al. (5,999,882) in view of Dearth (3,750,166) and Atlas (4,649,388).

As per claims 8 and 15, Simpson et al. do not clearly mention varying the time display the hazard. However, Dearth discloses varying the time at which the hazards are depicted in the display (see columns 10 to 11, lines 50 to 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the time varying of the hazards to detect the motion of hazards.

As per claim 16, Atlas discloses a threshold for an intensity of a hazard to be avoided by the route (see column 2, lines 20-31; and column 13, lines 46-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the threshold intensity of a hazard to detect the level emergency of the hazard to be avoided.

Claim 52, is system claim corresponding to method claim 16 above. Therefore, it is rejected for the same rationales set forth as above.

8. Claims 5,17,24,37,43,47,56, and 57, as understood by examiner, are reject under 35 U.S.C. 103(a) as being unpatentable over Simpson et al. (5,999,882) in view of Adams et al. (4,812,990).

As per claim 5, Simpson et al. do not disclose the boundaries are polygons. However, Adams et al discloses that (see figure 2). It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to modify the teach of Simpson et al by introduce the boundaries are polygons to have a wide area of planning routes.

As per claims 17,37, and 57, Simpson et al. do not disclose an optimizing cost for the route planning. However, Adams et al. disclose producing the received route data by optimizing a cost function for the route (see the abstract, lines 9-12; column 4, lines 10-17, lines 30-48; column 5, lines 25-35; and columns 6 to 7, lines 58 to 16).

Also as per claim 56, Adams et al. disclose the route data is optimized while avoiding at least certain of the hazards (see column 10, lines 17-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Simpson et al by introduce the cost optimizing to provide a best route and minimum cost for aircraft.

Claim 43, and 47, are apparatus claims corresponding to method claims 17 and 5 above. Therefore, they are rejected for the same rationales set forth as above.

Claim 24 is system claim corresponding to method claim 5 above. Therefore, it is rejected for the same rationales set forth as above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

. Atlas (3,646,555)

. Furuya et al (5,550,742)

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. Frank (5,615,118)

. Tognazzini (5,884,223)

. Wichgers et al (5,936,552)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Dalena Tran, whose telephone number is (703) 308-8223. The examiner can normally be reached on Monday-Friday from 7:30 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski, can be reached on (703) 308-3873.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

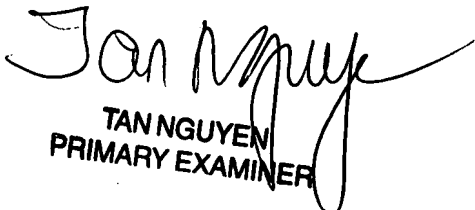
or faxed to:

(703) 308-5359, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

/dt
May 08, 2000


TAN NGUYEN
PRIMARY EXAMINER